# SECTION 6.3

# ARCHITECTURAL COATINGS

*(Revised October 2003)*

**EMISSION INVENTORY SOURCE CATEGORY**
Solvent Evaporation / Architectural Coatings and Related Processes

**EMISSION INVENTORY CODES (CES CODES) AND DESCRIPTION**

| | | |
|---|---|---|
| **520-520-91##-0000** | **(28 codes)** | Oil-Based Coatings |
| **520-520-92##-0000** | **(27 codes)** | Water-Based Coatings |
| **520-522-8300-0000** | **(46771)** | Cleanup & Thinning Solvents |

## METHODS AND SOURCES

The methodology described below is used to estimate emissions of total organic gases (TOG) and reactive organic gases (ROG) resulting from the use of ***oil-based*** and ***water-based*** architectural and industrial maintenance coatings and the associated use of ***cleanup and thinning solvents***. Only the non-aerosol types of architectural and industrial maintenance coatings are included. Aerosol coatings are covered under the Consumer Products category.

Architectural coatings are coatings applied to stationary structures and their accessories, to mobile homes, pavements, or curbs. Industrial maintenance coatings are high performance coatings formulated for and applied to substrates in industrial, commercial, or institutional situations exposed to extreme environmental conditions (e.g., immersion in water, chronic exposure to corrosive agents, repeated heavy abrasion).

Annual average emission estimates of TOG and ROG for the year 2000 were derived from data obtained through a survey of manufacturers of architectural and industrial maintenance coatings conducted by the Stationary Source Division of the Air Resources Board in 2001.[1]

The results of the survey showed that about 98 million gallons of coatings were sold in California in 2000. **O*il-based*** coatings (28 different types) accounted for 17% of the sales, while ***Water-based*** coatings (27 different types) accounted for 83% of the sales.

For each coating category, TOG emissions were estimated by dividing VOC emissions listed in the survey report[1] by the Fraction of Reactive Organic Gases (FROG) derived from chemical composition data obtained from SSD's previous survey conducted in 1998. The chemical composition data obtained from the 2001 survey will be reviewed for possible update of the FROGs. The statewide average emission factors were then derived by dividing the total statewide amount of TOG emissions by the statewide sales data listed in the survey report.[1]

TOG emissions from ***cleanup and thinning solvents*** were estimated based on the assumption that 1 pint of solvent (with a TOG emission factor of 6,400 pounds per 1,000 gallons) is used per gallon of oil-based coating.[2] ROG emissions are estimated by multiplying the TOG emissions by the appropriate Fraction of Reactive Organic Gases.[3]

Statewide TOG emissions, broken down by coating type, are summarized in Tables I and II. These tables list the EIC and CES codes, category descriptions, process rates, ROG emissions, TOG emissions, and the TOG emission factors. The ARB survey gathered data for 51 types of coatings. However, to protect the confidentiality of the respondents' data, the data in the survey report are only shown where the data are for three or more companies. Consequently, the data for coatings not representing at least three companies are combined into two "Other" categories: one for ***water-based*** paints and one for ***oil-based*** paints. Several other coatings with small volumes have also been moved to the "Other" categories. The types of coatings included in these "Other" categories are listed in Table III.

The amounts of coatings sold in the state were apportioned to the counties using population. In Table IV, process rate and ROG emissions data for total oil-based paints, total water-based paints, and from cleanup and thinning solvents are listed for all counties.

## ASSUMPTIONS

1. The 2000 emissions from the use of architectural coatings in California can be estimated from data found in the 2001 survey report.[1]

2. The amount of coatings sold is equal to the amount used.

3. Paint cleanup and thinning solvents are used at the rate of one pint per gallon of oil-based coating. [2]

4. Paint cleanup and thinning solvents have a density of 770 g/l.[2] This is equivalent to 6.4 pounds per gallon (or 6,400 pounds per 1,000 gallons).

5. Statewide architectural coatings usage can be apportioned to the counties using population.

## CHANGES IN METHODOLOGY

The 1996 emission inventory was based on 1996 sales and VOC emissions data obtained through a 1998 survey of architectural coatings manufacturers conducted by the Air Resources Board. The 2000 inventory is based on 2000 sales and emissions data obtained from a 2001 survey also conducted by the Air Resources Board. Some coating categories from the 1998 survey have been combined with other categories for the 2001 survey.

## COMMENTS AND RECOMMENDATIONS

Information on the use of cleanup and thinning solvents was not collected in the latest survey. However, information will be obtained as part of a study currently underway. The types of information being gathered include the specific types and amounts of solvents used, density and emission factors.

## DIFFERENCES BETWEEN 2000 AND 1996 EMISSION ESTIMATES

The 2000 ROG emissions from these categories are 10 percent higher than the 1996 emissions. Emissions from the usage of water-based coatings increased by 18 percent, while emissions from the use of oil-based coatings increased by 5 percent. Sales of oil-based coatings increased by 8 percent. Sales of water-based coatings increased by 14 percent. The ratio of water-based coatings sales over oil-based coatings sales is 4.8 for 2000 in contrast to 4.57 for 1996.

## TEMPORAL ACTIVITY

The application of architectural coatings is assumed to be highest during the summer and lowest in the winter. The weekly activity occurs primarily during weekdays. The daily activity occurs primarily during daylight hours.

## REFERENCES


1. California Environmental Protection Agency, Air Resources Board, 2001 Architectural Coatings Survey - Final Report (October 2003).

2. Air Resources Board, Methods for Assessing Area Source Emissions in California (December 1984).

3. California Environmental Protection Agency, Air Resources Board, Improvement of Speciation Profiles for Architectural and Industrial Maintenance Coating Operations, Contract No. 93-319 (June 1996).


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**TABLE I**
**SOLVENT-BORNE COATINGS AND THINNING/CLEANUP SOLVENTS**
**2000 STATEWIDE EMISSIONS**

| ARB 2001 Architectural Coating Survey Summary (as of 09/12/03) | | | | | | | |
|---|---|---|---|---|---|---|---|
| EIC | CES | Coating Category | Sales (gals) | **Process Rate (1000 gal)** | ROG Emissions (TPY) | **TOG Emissions (TPY)*** | **TOG Emission Factor (lbs/1000 gal)** |
| 520,520,9164,0000 | 85571 | Bituminous Roof | 1,608,033 | 1,608.033 | 1,570.2 | 1,628.1 | 2,025.02 |
| New | | Bituminous Roof Primer | 69,993 | 69.993 | 114.0 | 118.2 | 3,378.44 |
| 520,520,9165,0000 | 85589 | Concrete Curing Compounds | 32,395 | 32.395 | 29.8 | 30.9 | 1,907.16 |
| 520,520,9166,0000 | 85597 | Dry Fog | 243,047 | 243.047 | 310.7 | 322.2 | 2,651.01 |
| New | | Faux Finishing | 6,948 | 6.948 | 11.7 | 12.1 | 3,487.50 |
| 520,520,9159,0000 | 85530 | Flat | 11,952 | 11.952 | 18.4 | 19.1 | 3,189.39 |
| 520,520,9169,0000 | 85621 | Floor | 149,939 | 149.939 | 86.5 | 89.7 | 1,196.67 |
| 520,520,9170,0000 | 85639 | Form Release Compounds | 223,634 | 223.634 | 221.0 | 229.2 | 2,049.64 |
| 520,520,9172,0000 | 85654 | Industrial Maintenance | 4,126,134 | 4,126.134 | 5,406.8 | 5,606.3 | 2,717.48 |
| Now combined | | Lacquers | 374,503 | 374.503 | 876.0 | 908.3 | 4,850.73 |
| Was under "Other" | | Mastic Texture | 210,143 | 210.143 | 165.2 | 171.3 | 1,630.50 |
| 520,520,9173,0000 | 85662 | Metallic Pigmented | 513,541 | 513.541 | 1,003.2 | 1,040.2 | 4,051.23 |
| Now combined | | Nonflat - Low Gloss/Medium Gloss | 591,699 | 591.699 | 810.2 | 840.1 | 2,839.76 |
| 520,520,9161,0000 | 85548 | Nonflat - High Gloss | 596,788 | 596.788 | 832.9 | 863.6 | 2,894.28 |
| 520,520,9100,0000 | 46763 | Other Coatings | 309,258 | 309.258 | 630.0 | 653.2 | 4,224.42 |
| 520,520,9105,0000 | 85399 | Primer, Sealer, and Undercoater | 1,369,924 | 1,369.924 | 1,886.1 | 1,955.8 | 2,855.27 |
| 520,520,9153,0000 | 85506 | Quick Dry Enamel | 607,372 | 607.372 | 901.7 | 934.9 | 3,078.64 |
| 520,520,9106,0000 | 85407 | Quick Dry Primer, Sealer, and Undercoater | 1,259,524 | 1,259.524 | 2,270.5 | 2,354.4 | 3,738.48 |
| 520,520,9174,0000 | 85670 | Roof | 89,448 | 89.448 | 77.9 | 80.8 | 1,807.04 |
| Was under "Other" | | Rust Preventative | 166,748 | 166.748 | 263.4 | 273.1 | 3,275.82 |
| New | | Specialty Primer, Sealer, and Undercoater | 21,461 | 21.461 | 35.8 | 37.1 | 3,458.79 |
| Now combined | | Stains - Clear/Semitransparent | 1,690,513 | 1,690.513 | 2,724.6 | 2,825.2 | 3,342.42 |
| 520,520,9136,0000 | 85472 | Stains - Opaque | 224,925 | 224.925 | 309.5 | 320.9 | 2,853.25 |
| 520,520,9176,0000 | 85696 | Traffic Marking | 799,677 | 799.677 | 273.4 | 283.5 | 709.13 |
| Now combined | | Varnishes - Clear/Semitransparent | 773,417 | 773.417 | 1,392.5 | 1,443.9 | 3,733.77 |
| Now combined | | Waterproofing Sealers | 442,989 | 442.989 | 601.1 | 623.3 | 2,813.91 |
| New | | Waterproofing Concrete/Masonry Sealers | 225,227 | 225.227 | 373.5 | 387.3 | 3,439.47 |
| Now combined | | Wood Preservatives | 166,982 | 166.982 | 247.6 | 256.7 | 3,074.92 |
| | | Total Solvent-Borne Coatings | 16,906,211 | 16,906.211 | 23,444.2 | 24,309.6 | |
| | | | | | | | |
| 520,522,8300,0000 | 46771 | Thinning and Cleanup Solvents** | 2,113,276 | 2,113.276 | 6,527.1 | 6,762.5 | 6400.00 |

* TOG emissions = ROG emissions / FROG; FROG = 0.9644 (rev. 12/00)
** Assume 1 pint (or 0.125 gal) of thinning/cleanup solvent per gallon of solvent-borne coatings; FROG = 0.9652

**TABLE II**
**WATER-BORNE COATINGS**
**2000 STATEWIDE EMISSIONS**

| ARB 2001 Architectural Coating Survey Summary (as of 09/12/03) | | | | | | | |
|---|---|---|---|---|---|---|---|
| EIC | CES | Coating Category | Sales (gals) | **Process Rate (1000 gal)** | ROG Emissions (TPY) | **TOG Emissions (TPY)*** | **TOG Emission Factor (lbs/1000 gal)** |
| 520,520,9264,0000 | 85894 | Bituminous Roof | 1,637,364 | 1,637.364 | 9.1 | 9.1 | 11.15 |
| New | | Bituminous Roof Primer | 100,527 | 100.527 | 19.3 | 19.3 | 384.19 |
| 520,520,9265,0000 | 85902 | Concrete Curing Compounds | 660,024 | 660.024 | 105.6 | 105.6 | 319.97 |
| 520,520,9266,0000 | 85910 | Dry Fog | 216,709 | 216.709 | 89.6 | 89.7 | 827.49 |
| New | | Faux Finishing | 166,789 | 166.789 | 66.9 | 66.9 | 802.77 |
| 520,520,9259,0000 | 85852 | Flat | 34,798,306 | 34,798.306 | 5,674.1 | 5,675.3 | 326.18 |
| 520,520,9269,0000 | 85936 | Floor | 1,275,125 | 1,275.125 | 231.6 | 231.6 | 363.33 |
| New | | Form Release Compounds | 32,090 | 32.090 | 1.8 | 1.8 | 114.72 |
| 520,520,9272,0000 | 85944 | Industrial Maintenance | 613,946 | 613.946 | 230.6 | 230.6 | 751.24 |
| Now combined | | Lacquers | 72,849 | 72.849 | 36.3 | 36.3 | 997.66 |
| Was under "Other" | | Mastic Texture | 418,447 | 418.447 | 82.4 | 82.4 | 393.85 |
| 520,520,9273,0000 | 85951 | Metallic Pigmented | 112,402 | 112.402 | 23.7 | 23.7 | 422.11 |
| Now combined | | Nonflat - Low Gloss/Medium Gloss | 24,105,930 | 24,105.930 | 6,355.4 | 6,356.6 | 527.39 |
| 520,520,9261,0000 | 85860 | Nonflat - High Gloss | 1,329,648 | 1,329.648 | 499.2 | 499.3 | 750.99 |
| 520,520,9200,0000 | 46755 | Other Coatings | 1,756,375 | 1,756.375 | 79.6 | 79.6 | 90.66 |
| 520,520,9205,0000 | 85720 | Primer, Sealer, and Undercoater | 6,755,899 | 6,755.899 | 1,234.0 | 1,234.2 | 365.38 |
| 520,520,9206,0000 | 85738 | Quick Dry Primer, Sealer, and Undercoater | 400,703 | 400.703 | 96.7 | 96.7 | 482.69 |
| 520,520,9274,0000 | 85969 | Roof | 1,047,906 | 1,047.906 | 131.3 | 131.4 | 250.71 |
| Was under "Other" | | Rust Preventative | 43,151 | 43.151 | 10.2 | 10.2 | 473.51 |
| New | | Specialty Primer, Sealer, and Undercoater | 355,060 | 355.060 | 76.3 | 76.3 | 429.65 |
| Now combined | | Stains - Clear/Semitransparent | 481,082 | 481.082 | 145.6 | 145.6 | 605.38 |
| 520,520,9236,0000 | 85803 | Stains - Opaque | 862,448 | 862.448 | 188.1 | 188.1 | 436.18 |
| 520,520,9276,0000 | 85977 | Traffic Marking | 2,539,241 | 2,539.241 | 834.2 | 834.4 | 657.21 |
| Now combined | | Varnishes - Clear/Semitransparent | 375,948 | 375.948 | 185.7 | 185.8 | 988.33 |
| Now combined | | Waterproofing Sealers | 574,622 | 574.622 | 98.0 | 98.1 | 341.31 |
| New | | Waterproofing Concrete/Masonry Sealers | 482,694 | 482.694 | 100.5 | 100.5 | 416.49 |
| Now combined | | Wood Preservatives | 10,462 | 10.462 | 1.8 | 1.8 | 346.31 |
| | | Total Water-Borne Coatings | 81,225,745 | 81,225.745 | 16,607.8 | 16,611.1 | |

* TOG emissions = ROG emissions / FROG; FROG = 0.9998 (rev. 12/00)

**TABLE III**
**OTHER COATINGS**

| ARB 2001 Architectural Coating Survey Summary (as of 09/12/03) | | | | | | | |
|---|---|---|---|---|---|---|---|
| Category Code | Coating Category | Total Sales (gals) | SB Sales (gals) | WB Sales (gals) | SB Ems (ROG tpy) | WB Ems (ROG tpy) | Total Ems (ROG tpy) |
| 1 | Antenna | PD | PD | PD | 0.5 | 0.0 | 0.6 |
| 6 | Clear Brushing Lacquer | PD | PD | 0 | 192.8 | 0.0 | 192.8 |
| 10 | Fire Resistive | PD | 0 | PD | 0.0 | 0.1 | 0.1 |
| 11 | Fire Retardant - Clear | PD | 0 | PD | 0.0 | 0.0 | 0.0 |
| 12 | Fire Retardant - Opaque | PD | PD | 26,690 | 2.5 | 3.7 | 6.2 |
| 15 | Flow | PD | 0 | PD | 0.0 | 0.5 | 0.5 |
| 18 | High Temperature | PD | 18,621 | PD | 29.7 | 0.0 | 29.7 |
| 22 | Magnesite Cement | PD | PD | 0 | 42.1 | 0.0 | 42.1 |
| 25 | Multi-Color | PD | PD | 7,517 | 0.1 | 2.6 | 2.7 |
| 31 | Quick Dry Enamel (WB only) | PD | | PD | | 7.4 | 7.4 |
| 37 | Shellacs - Clear | PD | PD | 0 | 38.6 | 0.0 | 38.6 |
| 38 | Shellacs - Opaque | PD | PD | 0 | 183.5 | 0.0 | 183.5 |
| | **SUBTOTALS:** | **280,658** | **227,316** | **53,342** | **490.0** | **14.4** | **504.3** |
| | | | | | | | |
| 5 | Bond Breakers | 93,896 | 0 | 93,896 | 0.0 | 25.0 | 25.0 |
| 17 | Graphic Arts | 26,389 | 13,667 | 12,722 | 23.5 | 2.8 | 26.3 |
| 21 | Low Solids | 13,413 | 0 | 13,413 | 0.0 | 3.3 | 3.3 |
| 29 | Pre-Treatment Wash Primer | 75,342 | 4,188 | 71,154 | 8.5 | 27.9 | 36.4 |
| 36 | Sanding Sealers | 28,268 | 20,452 | 7,816 | 47.4 | 2.6 | 50.0 |
| 42 | Swimming Pool | 22,086 | 12,399 | 9,687 | 16.6 | 3.7 | 20.2 |
| 43 | Swimming Pool Repair and Maintenance | 15,266 | 15,266 | 0 | 36.3 | 0.0 | 36.3 |
| 51 | Other* | 1,510,316 | 15,971 | 1,494,345 | 7.6 | 0.1 | 7.7 |
| | **SUBTOTALS:** | **1,784,976** | **81,943** | **1,703,033** | **140.0** | **65.2** | **205.2** |
| | | | | | | | |
| | **TOTAL OTHER COATINGS** | **2,065,633** | **309,258** | **1,756,375** | **630.0** | **79.6** | **709.6** |

* The "Other" category consists primarily of bituminous driveway sealer emulsions that have zero grams per liter of VOCs.

PD = Protected Data

## TABLE IV
## 2000 ARCHITECTURAL COATINGS EMISSIONS - COUNTY SUMMARY

| | | | | | | Solvent-Borne Coatings (28 EICs) | | Water-Borne Coatings (27 EICs) | | Thinners/Cleanup | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| co | ab | dis | county | 2000 Pop. | % of total pop. | Process Rate (1000 gal) | ROG Ems (TPY) | Process Rate (1000 gal) | ROG Ems (TPY) | Process Rate (1000 gal) | ROG Ems (TPY) |
| 2 | GBV | GBU | Alpine | 1,200 | 0.004% | 0.596 | 0.8 | 2.864 | 0.6 | 0.075 | 0.2 |
| 14 | GBV | GBU | Inyo | 18,100 | 0.053% | 8.990 | 12.5 | 43.195 | 8.8 | 1.124 | 3.5 |
| 26 | GBV | GBU | Mono | 12,900 | 0.038% | 6.408 | 8.9 | 30.785 | 6.3 | 0.801 | 2.5 |
| | **GBV Total** | | | 32,200 | 0.095% | 15.994 | 22.2 | 76.843 | 15.7 | 1.999 | 6.2 |
| 17 | LC | LAK | Lake | 58,600 | 0.172% | 29.107 | 40.4 | 139.845 | 28.6 | 3.638 | 11.2 |
| | **LC Total** | | | 58,600 | 0.172% | 29.107 | 40.4 | 139.845 | 28.6 | 3.638 | 11.2 |
| 9 | LT | ED | El Dorado (partial) | 34,500 | 0.101% | 17.137 | 23.8 | 82.332 | 16.8 | 2.142 | 6.6 |
| 31 | LT | PLA | Placer (partial) | 12,200 | 0.036% | 6.060 | 8.4 | 29.115 | 6.0 | 0.757 | 2.3 |
| | **LT Total** | | | 46,700 | 0.137% | 23.196 | 32.2 | 111.447 | 22.8 | 2.900 | 9.0 |
| 3 | MC | AMA | Amador | 35,300 | 0.104% | 17.534 | 24.3 | 84.241 | 17.2 | 2.192 | 6.8 |
| 5 | MC | CAL | Calaveras | 40,700 | 0.120% | 20.216 | 28.0 | 97.128 | 19.9 | 2.527 | 7.8 |
| 9 | MC | ED | El Dorado (partial) | 123,800 | 0.364% | 61.493 | 85.3 | 295.441 | 60.4 | 7.687 | 23.7 |
| 22 | MC | MPA | Mariposa | 17,050 | 0.050% | 8.469 | 11.7 | 40.689 | 8.3 | 1.059 | 3.3 |
| 29 | MC | NSI | Nevada | 92,300 | 0.271% | 45.846 | 63.6 | 220.269 | 45.0 | 5.731 | 17.7 |
| 31 | MC | PLA | Placer (partial) | 22,200 | 0.065% | 11.027 | 15.3 | 52.979 | 10.8 | 1.378 | 4.3 |
| 32 | MC | NSI | Plumas | 20,800 | 0.061% | 10.332 | 14.3 | 49.638 | 10.1 | 1.291 | 4.0 |
| 46 | MC | NSI | Sierra | 3,600 | 0.011% | 1.788 | 2.5 | 8.591 | 1.8 | 0.224 | 0.7 |
| 55 | MC | TUO | Tuolumne | 54,800 | 0.161% | 27.220 | 37.7 | 130.777 | 26.7 | 3.402 | 10.5 |
| | **MC Total** | | | 410,550 | 1.206% | 203.924 | 282.8 | 979.753 | 200.3 | 25.491 | 78.7 |
| 15 | MD | KER | Kern (partial) | 112,900 | 0.332% | 56.079 | 77.8 | 269.429 | 55.1 | 7.010 | 21.7 |
| 19 | MD | AV | Los Angeles (partial) | 300,200 | 0.882% | 149.112 | 206.8 | 716.410 | 146.5 | 18.639 | 57.6 |
| 33 | MD | MOJ | Riverside (partial) | 16,500 | 0.048% | 8.196 | 11.4 | 39.376 | 8.1 | 1.024 | 3.2 |
| 33 | MD | SC | Riverside (partial) | 9,300 | 0.027% | 4.619 | 6.4 | 22.194 | 4.5 | 0.577 | 1.8 |
| 36 | MD | MOJ | San Bernardino (partial) | 381,800 | 1.122% | 189.644 | 263.0 | 911.143 | 186.3 | 23.706 | 73.2 |
| | **MD Total** | | | 820,700 | 2.411% | 407.650 | 565.3 | 1,958.552 | 400.5 | 50.956 | 157.4 |
| 8 | NC | NCU | Del Norte | 27,600 | 0.081% | 13.709 | 19.0 | 65.866 | 13.5 | 1.714 | 5.3 |
| 12 | NC | NCU | Humboldt | 126,500 | 0.372% | 62.834 | 87.1 | 301.885 | 61.7 | 7.854 | 24.3 |
| 23 | NC | MEN | Mendocino | 86,700 | 0.255% | 43.065 | 59.7 | 206.904 | 42.3 | 5.383 | 16.6 |
| 49 | NC | NS | Sonoma (partial) | 57,000 | 0.167% | 28.312 | 39.3 | 136.027 | 27.8 | 3.539 | 10.9 |
| 53 | NC | NCU | Trinity | 13,000 | 0.038% | 6.457 | 9.0 | 31.024 | 6.3 | 0.807 | 2.5 |
| | **NC Total** | | | 310,800 | 0.913% | 154.378 | 214.1 | 741.706 | 151.7 | 19.297 | 59.6 |
| 27 | NCC | MBU | Monterey | 402,400 | 1.182% | 199.876 | 277.2 | 960.304 | 196.3 | 24.985 | 77.2 |
| 35 | NCC | MBU | San Benito | 53,800 | 0.158% | 26.723 | 37.1 | 128.391 | 26.3 | 3.340 | 10.3 |
| 44 | NCC | MBU | Santa Cruz | 256,400 | 0.753% | 127.357 | 176.6 | 611.884 | 125.1 | 15.920 | 49.2 |
| | **NCC Total** | | | 712,600 | 2.094% | 353.956 | 490.8 | 1,700.578 | 347.7 | 44.244 | 136.7 |
| 18 | NEP | LAS | Lassen | 34,150 | 0.100% | 16.963 | 23.5 | 81.497 | 16.7 | 2.120 | 6.5 |
| 25 | NEP | MOD | Modoc | 9,400 | 0.028% | 4.669 | 6.5 | 22.433 | 4.6 | 0.584 | 1.8 |
| 47 | NEP | SIS | Siskiyou | 44,500 | 0.131% | 22.104 | 30.7 | 106.197 | 21.7 | 2.763 | 8.5 |
| | **NEP Total** | | | 88,050 | 0.259% | 43.735 | 60.6 | 210.126 | 43.0 | 5.467 | 16.9 |
| 19 | SC | SC | Los Angeles (partial) | 9,260,200 | 27.207% | 4,599.638 | 6,378.4 | 22,098.922 | 4,518.5 | 574.955 | 1,775.8 |
| 30 | SC | SC | Orange | 2,854,600 | 8.387% | 1,417.910 | 1,966.2 | 6,812.335 | 1,392.9 | 177.239 | 547.4 |
| 33 | SC | SC | Riverside (partial) | 1,203,600 | 3.536% | 597.841 | 829.0 | 2,872.321 | 587.3 | 74.730 | 230.8 |
| 36 | SC | SC | San Bernardino (partial) | 1,335,800 | 3.925% | 663.506 | 920.1 | 3,187.808 | 651.8 | 82.938 | 256.2 |
| | **SC Total** | | | 14,654,200 | 43.055% | 7,278.894 | 10,093.8 | 34,971.385 | 7,150.4 | 909.862 | 2,810.2 |
| 40 | SCC | SLO | San Luis Obispo | 247,700 | 0.728% | 123.035 | 170.6 | 591.121 | 120.9 | 15.379 | 47.5 |
| 42 | SCC | SB | Santa Barbara | 400,700 | 1.177% | 199.032 | 276.0 | 956.247 | 195.5 | 24.879 | 76.8 |
| 56 | SCC | VEN | Ventura | 756,700 | 2.223% | 375.861 | 521.2 | 1,805.820 | 369.2 | 46.983 | 145.1 |
| | **SCC Total** | | | 1,405,100 | 4.128% | 697.928 | 967.8 | 3,353.188 | 685.6 | 87.241 | 269.5 |
| 37 | SD | SD | San Diego | 2,830,100 | 8.315% | 1,405.740 | 1,949.4 | 6,753.867 | 1,380.9 | 175.718 | 542.7 |
| | **SD Total** | | | 2,830,100 | 8.315% | 1,405.740 | 1,949.4 | 6,753.867 | 1,380.9 | 175.718 | 542.7 |
| 1 | SF | BA | Alameda | 1,452,000 | 4.266% | 721.224 | 1,000.1 | 3,465.112 | 708.5 | 90.153 | 278.4 |
| 7 | SF | BA | Contra Costa | 954,100 | 2.803% | 473.911 | 657.2 | 2,276.903 | 465.5 | 59.239 | 183.0 |
| 21 | SF | BA | Marin | 247,500 | 0.727% | 122.936 | 170.5 | 590.644 | 120.8 | 15.367 | 47.5 |
| 28 | SF | BA | Napa | 125,200 | 0.368% | 62.188 | 86.2 | 298.782 | 61.1 | 7.774 | 24.0 |
| 38 | SF | BA | San Francisco | 780,800 | 2.294% | 387.832 | 537.8 | 1,863.333 | 381.0 | 48.479 | 149.7 |
| 41 | SF | BA | San Mateo | 710,300 | 2.087% | 352.813 | 489.3 | 1,695.089 | 346.6 | 44.102 | 136.2 |
| 43 | SF | BA | Santa Clara | 1,692,000 | 4.971% | 840.434 | 1,165.4 | 4,037.858 | 825.6 | 105.054 | 324.5 |
| 48 | SF | BA | Solano (partial) | 274,000 | 0.805% | 136.099 | 188.7 | 653.885 | 133.7 | 17.012 | 52.5 |
| 49 | SF | BA | Sonoma (partial) | 403,500 | 1.185% | 200.423 | 277.9 | 962.929 | 196.9 | 25.053 | 77.4 |
| | **SF Total** | | | 6,639,400 | 19.507% | 3,297.859 | 4,573.2 | 15,844.537 | 3,239.6 | 412.232 | 1,273.2 |
| 10 | SJV | SJU | Fresno | 804,500 | 2.364% | 399.604 | 554.1 | 1,919.892 | 392.6 | 49.950 | 154.3 |
| 15 | SJV | SJU | Kern (partial) | 553,000 | 1.625% | 274.681 | 380.9 | 1,319.702 | 269.8 | 34.335 | 106.0 |
| 16 | SJV | SJU | Kings | 130,200 | 0.383% | 64.672 | 89.7 | 310.715 | 63.5 | 8.084 | 25.0 |
| 20 | SJV | SJU | Madera | 126,600 | 0.372% | 62.884 | 87.2 | 302.123 | 61.8 | 7.860 | 24.3 |
| 24 | SJV | SJU | Merced | 210,500 | 0.618% | 104.558 | 145.0 | 502.346 | 102.7 | 13.070 | 40.4 |
| 39 | SJV | SJU | San Joaquin | 567,000 | 1.666% | 281.635 | 390.5 | 1,353.112 | 276.7 | 35.204 | 108.7 |
| 50 | SJV | SJU | Stanislaus | 449,800 | 1.322% | 223.420 | 309.8 | 1,073.421 | 219.5 | 27.928 | 86.3 |
| 54 | SJV | SJU | Tulare | 369,200 | 1.085% | 183.386 | 254.3 | 881.074 | 180.1 | 22.923 | 70.8 |
| | **SJV Total** | | | 3,210,800 | 9.433% | 1,594.838 | 2,211.6 | 7,662.385 | 1,566.7 | 199.355 | 615.7 |

**TABLE IV**
**2000 ARCHITECTURAL COATINGS EMISSIONS - COUNTY SUMMARY**

| | | | | | | Solvent-Borne Coatings (28 EICs) | | Water-Borne Coatings (27 EICs) | | Thinners/Cleanup | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| co | ab | dis | county | 2000 Pop. | % of total pop. | Process Rate (1000 gal) | ROG Ems (TPY) | Process Rate (1000 gal) | ROG Ems (TPY) | Process Rate (1000 gal) | ROG Ems (TPY) |
| 13 | SS | IMP | Imperial | 146,100 | 0.429% | 72.569 | 100.6 | 348.659 | 71.3 | 9.071 | 28.0 |
| 33 | SS | SC | Riverside (partial) | 325,500 | 0.956% | 161.679 | 224.2 | 776.787 | 158.8 | 20.210 | 62.4 |
| | **SS Total** | | | 471,600 | 1.386% | 234.249 | 324.8 | 1,125.446 | 230.1 | 29.281 | 90.4 |
| 4 | SV | BUT | Butte | 203,900 | 0.599% | 101.279 | 140.4 | 486.595 | 99.5 | 12.660 | 39.1 |
| 6 | SV | COL | Colusa | 18,900 | 0.056% | 9.388 | 13.0 | 45.104 | 9.2 | 1.173 | 3.6 |
| 11 | SV | GLE | Glenn | 26,550 | 0.078% | 13.188 | 18.3 | 63.360 | 13.0 | 1.648 | 5.1 |
| 31 | SV | PLA | Placer (partial) | 215,200 | 0.632% | 106.892 | 148.2 | 513.562 | 105.0 | 13.362 | 41.3 |
| 34 | SV | SAC | Sacramento | 1,229,700 | 3.613% | 610.805 | 847.0 | 2,934.607 | 600.0 | 76.351 | 235.8 |
| 45 | SV | SHA | Shasta | 164,400 | 0.483% | 81.659 | 113.2 | 392.331 | 80.2 | 10.207 | 31.5 |
| 48 | SV | YS | Solano (partial) | 121,300 | 0.356% | 60.251 | 83.6 | 289.475 | 59.2 | 7.531 | 23.3 |
| 51 | SV | FR | Sutter | 79,400 | 0.233% | 39.439 | 54.7 | 189.483 | 38.7 | 4.930 | 15.2 |
| 52 | SV | TEH | Tehama | 56,000 | 0.165% | 27.816 | 38.6 | 133.641 | 27.3 | 3.477 | 10.7 |
| 57 | SV | YS | Yolo | 169,200 | 0.497% | 84.043 | 116.5 | 403.786 | 82.6 | 10.505 | 32.4 |
| 58 | SV | FR | Yuba | 60,400 | 0.177% | 30.001 | 41.6 | 144.141 | 29.5 | 3.750 | 11.6 |
| | **SV Total** | | | 2,344,950 | 6.890% | 1,164.761 | 1,615.2 | 5,596.085 | 1,144.2 | 145.595 | 449.7 |
| | **Grand Total** | | | 34,036,350 | | 16,906.211 | 23,444.2 | 81,225.745 | 16,607.8 | 2,113.276 | 6,527.1 |